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09/977,502	10/15/2001	Steven E. Berkheimer	BER6209P0012US	1487

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WOOD, PHILLIPS, KATZ, CLARK & MORTIMER  
500 W. MADISON STREET  
SUITE 3800  
CHICAGO, IL 60661

EXAMINER
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PARDO, THUY N

ART UNIT	PAPER NUMBER
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2168

MAIL DATE	DELIVERY MODE
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08/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

09/977,502

Examiner

Thuy N. Pardo

Applicant(s)

BERKHEIMER, STEVEN E.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-28 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. Applicant' Remarks filed on May 11, 2007 in response to Examiner's Office Action has been reviewed. Claims 1-28 are pending in this application. Claims 1, 10 and 20 are independent claims. This action is Non- Final.

#### ***Claim Objections***

2. Claims 2-9 and 11-28 are objected to because of the following informalities: : "A method" and "A system" need to be changed to "The method" and "The system" because they are further limiting to independent claims 1 and 10. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9-10 and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,671,353 to Tian et al. in view of US Patent No. RE37,722 to Burnard et al. (Hereinafter "Burnard").

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Referring to claim 1, Tian teaches a method of validating an item against a formal Standard (i.e., a predetermined standard and a user defined rule) as claimed. See Figures 2-14 and the corresponding portions of Tian's specification for this disclosure. Tian teaches "a method of archiving an item [See Abstract, Background, Summary, and description of PACS] comprising:

presenting the item [DICOM message] to a parser [See Column 5, lines 38-58];

parsing the item into a plurality of multi-part object structures [IODs (See Column 5, lines 38-58 and Column 6, line 41 et seq.)] wherein portions of the structures have searchable information tags associated therewith [See Column 8, line 43 et seq. and Column 14, line 57 et seq.];

evaluating the object structures ['semantic validation'] in accordance with object structures previously stored [rules] in an archive [See Column 5, lines 38-58 and all of 'Operational Scenarios' section beginning in Column 11];

presenting an evaluated object structure for manual reconciliation [See Column 10, lines 25-29] at least where there is a predetermined variance between the object and at least one of a predetermined standard and a user defined rule [when a semantic warning is generated during validation]" as claimed.

However, Tian does not explicitly teach archiving an item although it has the same functionality of validating object process that contain pictures, and to the archival thereof. Burnard teaches a method for archiving objects at the appropriate locale in the archive [ab; fig. 3B, 26, 27; col. 13, lines 52 to col. 14, lines 54].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the features of Burnard to Tian's system as an essential means

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to allow the validation of object occurs and stores at the appropriate locale within the archival system.

Referring to claim 2, Tian and Burnard teach the invention substantially as claimed. Tian further teaches the method of claim 1, as above, wherein the respective structure can be manually edited [by the 'application developer'] after being presented for reconciliation [See Column 10, lines 25-29] as claimed.

Referring to claim 3, Tian and Burnard teach the invention substantially as claimed. Tian further teaches the method of claim 1, as above, which includes, before the parsing step, converting an input item [e.g. 'digitized medical imagery'] to a standardized format [DICOM message format] for input to the parser [See Summary of the Invention section] as claimed.

Referring to claim 4, Tian and Burnard teach the invention substantially as claimed. Tian further teaches the method of claim 1, as above, which includes storing a reconciled object structure in the archive [See e.g. final paragraph of Summary of the Invention] as claimed.

Referring to claim 5, Tian and Burnard teach the invention substantially as claimed. Tian further teaches the method of claim 4, as above, which includes selectively editing an object structure [e.g. to correct the structure from a warning], linked to other structures [via pointer or reference (See Columns 8-10)] to thereby effect a one-to-many

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change in a plurality of archived items [via inheritance (See 'Operational Scenarios')]] as claimed.

Referring to claim 9, Tian and Burnard teach the invention substantially as claimed. Tian further teaches the method of claim 1, as above, which includes forming object oriented data structures from the parsed items [See above] wherein the data structures include [See Column 4, lines 20-40] at least some of item properties [modules], item property values [attributes], element properties [elements (element descriptions)] and element property values [element values] as claimed.

Claim 10 is rejected on substantially the same basis as claims 1-7 above. See the discussions regarding claims 1-7 for the details of this disclosure. In particular, Tian teaches an object-oriented archival system [See Fig. 1] comprising a storage medium [PACS storage] and selectively editing an object structure [e.g. to correct the structure from a warning], linked to other structures [via pointer or reference (See Columns 8-10)] to thereby effect a one-to-many change in a plurality of archived items [via inheritance (See 'Operational Scenarios')]] as claimed.

Claims 12-15 and 18 are rejected on substantially the same basis as claim 9, in light of the basis for claim 10 above. See the discussions regarding claims 1-7, 9 and 10 for the details of this disclosure.

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Claims 16 and 17 are rejected on substantially the same basis as claim 5, in light of the basis for claim 15. See the discussions regarding claims 1-7, 9 and 10 above for the details of this disclosure.

Referring to claim 19, Tian teaches the method of claim 10, as above, wherein the output file [DICOM message] comprises...an input for an electronic network [input to another PACS system over a PACS network] as claimed.

4. Claims 11 and 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,671,353 to Tian et al. in view of US Patent No. RE37,722 to Burnard et al. (Hereinafter "Burnard") and in view of U.S. Patent No. 6,456,395 to Ringness.

Referring first to claim 20, Tian and Burnard teaches the invention substantially as claimed. Tian further teaches a method of generating layers corresponding to separations in an object comprising:

establishing an archive [See Claims 1 and 10 above] populated with a plurality of object-type structures wherein a first plurality of the structures represents a first layer [e.g. IOD layer], wherein the members of the first plurality are linked to establish element definitions and locations, relative to one another, in the first layer [See above], and, at least a second plurality of the structures wherein the second plurality represents a second layer [e.g. block layer] wherein the members of the second plurality are linked to establish element definitions and locations [See above]...wherein the establishing step

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includes, analyzing the members of the first and second pluralities for common structures [See Claims 1-7 and 9 above]...as claimed.

However, Tian-Burnard's structures and layers do not correspond to color separations for a printing process, wherein the first layer corresponds to a color separation for a multi-color output document and the second layer corresponds to a second color separation for the output document as claimed. However, Tian's documents [DICOM messages] are multi-color output documents in that they include digital medical images. This provides suggestion for generating layers in the structured environment to correspond to the colors in the document.

Ringness discloses a system and method similar to that of Tian-Brunard, wherein object layers in a multi-color document corresponding to different color separations for the document are extracted for a printing process as claimed. See the Abstract, Summary, Figures 2-7 and the corresponding portions of Ringness' specification for this disclosure.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Ringness' method for separating colors into separate object structures for each color layer to the Tian-Brunard's system, so as to separate the colors within Tian's DICOM messages for archival purposes, to obtain the invention as claimed. One would have been motivated to do so because of Tian-Brunard's suggestion as above, and to further meet Ringness' disclosed need (See Column 2, lines 49-54) for more efficient methods of generating object structures for printing purposes by expanding the method to other formats, such as the DICOM message used by the medical community, to make printing the medical information in the DICOM message more efficient.



Claims 21-23 are rejected on substantially the same basis as claim 1 above in light of the basis for claim 20. See the discussions regarding claims 1 and 20 for the details of this disclosure.

Claims 24-28 are rejected on substantially the same basis as claims 2-7, in light of the basis for claims 20-23. See the discussions regarding claims 1-7 and 20-23 above for the details of this disclosure.

Claim 11 is rejected on the same basis as claim 20, in light of the basis for claims 1 and 10 respectively. See the discussions regarding claims 1-7, 10 and 20 above for the details of this disclosure.

***Allowable Subject Matter***

5. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claim 6, the feature of compiling an item output from the archive, wherein at least one object-type structure of the item has been edited during the one-to-many change and wherein the compiled item includes a plurality of linked object-type structures converted into a predetermined output file format, taken together with other limitations of claims 1, 4 and 5, was not disclosed by the prior art of record.

Claims 7 and 8 being further limiting to claim 6 are also objected to.

***Response to Arguments***

Applicant's arguments with respect to claims 1-5 and 9-28 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued that Tian does not disclose a method of archiving an item.

The examiner disagrees for the following reasons: Validation is a process of checking your documents against a formal Standard. Applicant's characterization of Tian as merely validating incoming and outgoing messages to ensure that they conform to a standard ignores the fact that this validation occurs within a PACS system, as clearly indicated by Tian throughout the specification. PACS stands for "Picture **Archival** and Communications System" as described in Column 1, lines 15-45 of Tian's specification. (Emphasis added) Tian is directed to the validation of DICOM messages that contain pictures, and to the archival thereof. Thus, Tian is clearly directed to a method of archiving an item as claimed. Further, the examiner submits that the only recitation of "archiving an item" occurs in the preamble of the claims, which is not given patentable weight. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190

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USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In the instant case, the preamble is considered an intended use because the body of the claim does not depend on the preamble for completeness. Therefore, Tian does teach each and every element of these claims.

Applicant argued that Tian's DICOM messages are not "items" as claimed and that Tian does not disclose or suggest parsing of any item.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., DICOM messages are not "items" and the "parsing" of the present invention is different than that of Tian) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, **limitations from the specification are not read into the claims**. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The remainder of applicant's remarks substantially repeat one or more of the above arguments or address features which are not claimed. The examiner's responses above apply here as well.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy N. Pardo whose telephone number is 571-272-4082.

The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 03, 2007

A handwritten signature in black ink, appearing to read 'Thuy Pardo', with a long, sweeping horizontal stroke extending to the right.

**THUY PARDO  
PRIMARY EXAMINER**